## PATENT ABSTRACTS

## [your application]

9/5/1 (Item 1 from file: 350)

DIALOG(R)File 350: Derwent WPIX

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0015140276 Drawing available WPI Acc no: 2005-489838/200550 XRPX Acc No: N2005-399006

Method for dynamically associating mobile ports to virtual local area network, involves receiving message from silent device in response to message previously received from device, at port which is associated to virtual local area network

Patent Assignee: ALCATEL (COGE); MAGRET V (MAGR-I); ROSE L (ROSE-I); ALCATEL LUCENT

(COGE)

Inventor: MAGRET V; ROSE L

Patent Family ( 4 patents, 37 countries )											
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Туре				
EP 1551133	A1	20050706	EP 200430785	Α	20041224	200550	В				
US 20050198383	A1	20050908	US 2003749993	A	20031231	200559	Е				
EP 1551133	В1	20081119	EP 200430785	A	20041224	200878	Е				
DE 602004017830	Е	20090102	DE 602004017830	A	20041224	200914	Е				
			EP 200430785	A	20041224						

Priority Applications (no., kind, date): US 2003749993 A 20031231; EP 200430785 A 20041224

Patent Details										
Patent Number	Kind	Lan	Pgs	Draw	Filing	, Notes				
EP 1551133	A1	EN	11	6						
Regional Designated AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI States, Original LT LU LV MC MK NL PL PT RO SE SI SK TR YU										
EP 1551133	B1	EN								
Regional Designated States,Original	AT BE NL PL				EE ES FI FR GB GR HU	IE IS IT LI LT LU MC				
DE 602004017830	E	DE			Application	EP 200430785				
					Based on OPI patent	EP 1551133				

## Alerting Abstract EP A1

NOVELTY - The command associating a silent device e.g. printer with respect to **virtual local area network** (**VLAN**), is received. The response message from the device, is transmitted to mobile ports in response to the command. Another response message from the device in response to the previous message, is received at a port which is identified. The identified **port** is **associated** to the **VLAN** which is associated with the device.

DESCRIPTION - An INDEPENDENT CLAIM is also included for switching node.

 $\label{thm:continuous} USE\mbox{ - For dynamically associating mobile ports of switching node (claimed) to virtual local area network (VLAN).}$ 

ADVANTAGE - Allows **silent devices** to be **identified** automatically. Allows the devices to be reachable even when they move from one mobile port to another.

11/5/4 (Item 4 from file: 350)

DIALOG(R)File 350: Derwent WPIX

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0014803849 *Drawing available*WPI Acc no: 2005-151535/200516
XRPX Acc No: N2005-127859

Network element information detection method e.g. for personal computer, involves storing information retrieved from network element using communication protocol, in database

Patent Assignee: MCCASLAND P (MCCA-I)

Inventor: MCCASLAND P

Patent Family (1 patents, 1 countries)								
Patent Number Kind Date Application Number Kind Date Update Type								
US 20050027855 A1	20050203	US 2003631437	A	20030730	200516 B			

Priority Applications (no., kind, date): US 2003631437 A 20030730

Patent Details									
Patent Number	Kind	Lan	Pgs	Draw	Filing I	Notes			
US 20050027855	A1	EN	8	3					

### **Alerting Abstract US A1**

NOVELTY - A database is accessed to determine whether network element identifier which is generated in response to a polling command, is present in the database. A communication protocol which is obtained in response to accessing database, is used to retrieve information from network element. The retrieved information is stored in database.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 1. network element information detecting system; and
- 2. computer program product for detecting network element information.

USE - For detecting information such as physical location, internet protocol (IP) address, circuit identification (ID), port information such as **port** identifier **related** to network element **such as personal** computer (PC), **printer**, hub, router and **switch** connected to network such as **local** area network (LAN), wide area network (WAN) and internet.

ADVANTAGE - The information related to all types of network elements are detected easily and efficiently.

DESCRIPTION OF DRAWINGS - The figure shows the flow diagram of the network element information detection system.

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DIALOG(R)File 350: Derwent WPIX

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0017828269 Drawing available WPI Acc no: 2008-G48728/200841 XRPX Acc No: N2008-509185

Role-based configuration providing method for e.g. router, involves retrieving configuration settings that are associated with selected port role definition, and applying settings to port of network

Patent Assignee: CISCO TECHNOLOGY INC (CISC-N)
Inventor: ANTEUNIS D; BERL S; RIGGINS C; STAMLER A

Patent Family (1 patents, 1 countries)								
Patent Number Kind Date Application Number Kind Date Update Type								
US 7380025	В1	20080527	US 2003681548	A	20031007	200841 B		

Priority Applications (no., kind, date): US 2003681548 A 20031007

Patent Details								
Patent Number Kind Lan Pgs Draw Filing Notes								
US 7380025	B1	EN	17	6				

### Alerting Abstract US B1

NOVELTY - The method involves discovering information that identifies a network element e.g. server, coupled to a port of another network element e.g. router, or describes a device type of the former network element, where the discovered information is based on a value in a field of a message sent by the former network element. Port of the latter network element is **associated** with a **port** role definition based on the discovered information. Configuration settings **associated** with the selected **port** role definition are retrieved, and are applied to the port of the latter network element.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 1. a computer-readable storage medium comprising a set of instructions to perform a method for providing a role-based configuration of a port of network elements
- 2. an apparatus comprising a network interface coupled to a data network for **receiving packet** flows.

USE - Method for providing a role-based configuration of a port of network elements e.g. router, **switch**, phone, router, storage device, and end station element such as personal computer, workstation, server, **printer** and phone, in a computer network e.g. wide area network and local area network.

ADVANTAGE - The method automatically provides a role-based configuration of a port of the network elements, based on discovery of devices that are connected to the port, and describing the roles of the port or devices in the computer network.

DESCRIPTION OF DRAWINGS - The drawing shows a flow diagram illustrating a high level operation of a method for role-based configuration of a port.

17/5/7 (Item 2 from file: 350)

DIALOG(R)File 350: Derwent WPIX

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0016806172 Drawing available WPI Acc no: 2007-521235/200751 Related WPI Acc No: 2004-068500 XRPX Acc No: N2007-399364

Network device's e.g. laptop, geographic location information e.g. longitude, discovering and maintaining method for use by network administrator, involves determining location of network device by accessing port memory location

Patent Assignee: CISCO TECHNOLOGY INC (CISC-N)

Inventor: GAI S; ORAN D R

Patent Family (1 patents, 1 countries)									
Patent Number	Kind	Date	Application N	lumber Kind	Date	Update Type			
US 7194354	B1	20070320	US 20018842	39 A	20010619	200751 B			
			US 200369789	96 A	20031030				

Priority Applications (no., kind, date): US 2001884239 A 20010619; US 2003697896 A 20031030

Patent Details									
Patent Number Kind Lan Pgs Draw Filing Notes									
US 7194354	US 7194354 B1 EN 16 7 Continuation of application US 20018842					US 2001884239			
					Continuation of patent	US 6665611			

## **Alerting Abstract US B1**

NOVELTY - The method involves interconnecting a network device e.g. laptop, to ports (302a-302g) of an intermediate network device e.g. network **switch** (124). A message is transmitted to the **switch**, where the message is provided with physical coordinates such as latitude, of the network device. The network device is disconnected and another network device e.g. voice over Internet protocol (VoIP) phone, is interconnected to the ports. Physical location of the latter network device is determined by accessing a memory **associated** with the **ports** and by activating global positioning system (GPS) receiver. DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 1. an intermediate network device comprising a geographical location recording/reporting entity
- 2. a method for discovering and using geographic location information
- 3. a computer readable medium comprising instructions for performing a method for discovering and using geographic location information.

USE - Used for discovering and maintaining geographic location information such as physical coordinate e.g. longitude and latitude, for a network device such as portable personal computer e.g. laptop, notebook and palm personal computer (PC), end station, **printer**, scanner, server, network **switch**, bridge, voice over Internet protocol (VoIP) phone, router, and **switch**-router, interconnected for forming a computer network such as local area network (LAN), wide area network (WAN), intranet, in office building, and campus, by a network administrator, and also used for emergency calling service.

ADVANTAGE - The method automatically discovers and maintains geographic location information for the network devices in time effective manner without prone to error, facilitates enhanced emergency service calls from voice over Internet protocol (VoIP) telephones, and enables an emergency operator to direct emergency personnel to a correct location.

17/5/8 (Item 3 from file: 350)

DIALOG(R)File 350: Derwent WPIX

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0014611905 Drawing available WPI Acc no: 2004-793878/200478 XRPX Acc No: N2004-625585

Data communication switching domain e.g. optical bridge, for end-nodes e.g. PC, has edge and backbone ports, each associated with receive wavelength based on virtual network membership, for passing data received from other port

Patent Assignee: READER S A (READ-I)

Inventor: READER S A

Patent Family (1 patents, 1 countries)								
Patent Number   Kind   Date   Application Number   Kind   Date   Update   Type								
US 20040208570	A1	20041021	US 2003418336	A	20030418	200478 B		

Priority Applications (no., kind, date): US 2003418336 A 20030418

Patent Details									
Patent Number	Kind	Lan	Pgs	Draw	Filing Note	S			
US 20040208570	A1	EN	10	5					

## **Alerting Abstract US A1**

NOVELTY - The domain (200) has edge ports and backbone ports coupled to transmitting/receiving nodes, and coupled to each other by a wavelength division multiple access optical transmission medium. Each **port** is **associated** with transmit wavelength for transmitting data to other **ports**. Each **port** is **associated** with receive wavelength based on virtual network membership for selectively passing data received from the other ports.

DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of transmitting data between ports.

USE - Used for providing data communication between end-nodes e.g. personal computer (PC), work station, server and **printer** of a local area network (LAN) e.g. IEEE 802.3 wired Ethernet LAN and IEEE 802.11 wireless LAN.

ADVANTAGE - The **ports** are **associated** with receive wavelength based on virtual network membership for selectively passing data received from the other ports, thus maintaining integrity of virtual network boundaries within a network infrastructure.

DESCRIPTION OF DRAWINGS - The drawing shows a block diagram of an optical bridge and a network manager within a bridged local area network infrastructure.

200 Optical switching domain

210 Network manager

220 Bridge manager

240 Optical transmitter

260 Optical receiver

17/5/10 (Item 5 from file: 350)

DIALOG(R)File 350: Derwent WPIX

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0013679350 Drawing available WPI Acc no: 2003-775957/**200373** XRPX Acc No: N2003-621614

Data communication method in computer network, involves selecting one output port connecting secondary switch and destination, based on data frame from source, and transmitting data frame to destination, through selected port

Patent Assignee: NORTEL NETWORKS LTD (NELE) Inventor: FITE D B; ILYADIS N; SALETT R M

Patent Family (1 patents, 1 countries)								
Patent Number Kind Date Application Number Kind Date Update Type								
US 6496502 B1	20021217	US 1998106801	A	19980629	200373 B			

Priority Applications (no., kind, date): US 1998106801 A 19980629

Patent Details								
Patent Number Kind Lan Pgs Draw Filing Notes								
US 6496502	В1	EN	16	7				

### Alerting Abstract US B1

NOVELTY - A data frame is encoded with a trunk identifier **assigned** for an input **port** of a primary **switch** and the encoded data frame containing a source address, a destination address and the trunk identifier is transmitted to a secondary **switch**. The secondary **switch** selects an output port connected to a destination, based on the **received** data **frame** and **transmits** the data **frame** to the destination station, through the selected port.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 1. network apparatus; and
- 2. computer network.

USE - For data communication between source and destination stations through computer network (claimed) which interconnect computing resources, workstations, servers, **printers**, modems and storage device.

ADVANTAGE - Since the data **frame** is **transmitted** to the destination **station**, through **the** selected output port, the wastage of bandwidth of the extra links is reduced, and the cost of the network is reduced. DESCRIPTION OF DRAWINGS - The figure shows a schematic view of the network system.

17/5/13 (Item 8 from file: 350) DIALOG(R)File 350: Derwent WPIX

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0012505171 *Drawing available* WPI Acc no: 2002-453052/**200248** XRPX Acc No: N2002-357189

Addressing method of passive network device in data-over-cable system, involves storing network address assigned to passive device in configuration file for active device comprising network address protocol stack

Patent Assignee: 3COM CORP (TCOM)

Inventor: BESER N B

Patent Family (1 patents, 1 countries)						
Patent Number Kind	Date A	pplication Number	Kind	Date	Update 7	Гуре
US 6370147 B1	20020409 U	S 199865129	A	19980423	200248 I	3

Priority Applications (no., kind, date): US 199865129 A 19980423

Patent Details						
Patent Number	Kind	Lan	Pgs	Draw	Filing N	lotes
US 6370147	В1	EN	46	21		

## **Alerting Abstract US B1**

NOVELTY - A passive network device assigned with a network address, does not have a network address protocol stack to obtain its own network address. The network address of passive device is stored in a configuration file for active network device which has a network address protocol stack. The active network device sends a message comprising assigned network address of passive device to a cable modem termination system.

DESCRIPTION - An INDEPENDENT CLAIM is included for a computer readable medium storing addressing program of passive network devices.

USE - For communications in computer network for data-over-cable system. Is also applicable in two-way cable connection system.

ADVANTAGE - Allows passive network devices such as **printer**, facsimile, computer or other passive network devices without the DHCP protocol stack to be used in data-over-cable system. The data link layer which **transmits** error-free **frames** of data can be used in a data-over-cable system with a two-way cable connection.

DESCRIPTION OF DRAWINGS - The figure shows a flow diagram illustrating a method for addressing passive network devices in a data-over-cable system.

21/5/2 (Item 2 from file: 350)

DIALOG(R)File 350: Derwent WPIX

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0015006147 *Drawing available* WPI Acc no: 2005-354052/200536 XRPX Acc No: N2005-289097

Bridge uplink port identifying method for use in local network, involves identifying port associated with interface index retrieved from forwarding database table of selected bridge as uplink port of adjacent bridge

Patent Assignee: BROOKS J D (BROO-I); FLUKE CORP (FLUK-N)

Inventor: BROOKS J D

Patent Family (8 patents, 35 countries)								
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Туре	
US 20050089051	A1	20050428	US 2003695240	A	20031027	200536	В	
EP 1528721	A2	20050504	EP 2004253745	A	20040623	200536	Е	
CN 1612544	Α	20050504	CN 200410071307	Α	20040719	200558	Е	
EP 1528721	В1	20071003	EP 2004253745	A	20040623	200765	Е	
DE 602004009261	Е	20071115	DE 062004009261	A	20040623	200777	Е	
			EP 2004253745	Α	20040623			
US 7394773	В2	20080701	US 2003695240	A	20031027	200845	Е	
DE 602004009261	Т2	20080703	DE 062004009261	A	20040623	200846	Е	
			EP 2004253745	Α	20040623			
CN 101404595	A	20090408	CN 200810130180	A	20040719	200929	Е	

Priority Applications (no., kind, date): US 2003695240 A 20031027; US 2003695240 A 20031027

				Patent D	etails	
Patent Number	Kind	Lan	Pgs	Draw	Filing	g Notes
US 20050089051	A1	EN	5	2	<b>`</b>	
EP 1528721	A2	EN			<b>Y</b>	
Regional Designated States,Original	3.5				E DK EE ES FI FR GB GI E SI SK TR	R HR HU IE IT LI LT LU
EP 1528721	B1	EN			<b>`</b>	
Regional Designated States,Original	DE FR	GB				
DE 602004009261	E	DE			Application	EP 2004253745
					Based on OPI patent	EP 1528721
DE 602004009261	T2	DE			Application	EP 2004253745
					Based on OPI patent	EP 1528721

# **Alerting Abstract US A1**

NOVELTY - The method involves sending an Internet control message protocol ping to bridges (20, 22, 24) to store interface indices in forwarding data base tables. A simple network monitoring protocol query is sent to a selected bridge to retrieve stored contents of its forwarding data base table. A **port associated** 

with an interface index retrieved from the selected bridge is identified as an uplink port of the adjacent bridge.

USE - Used for identifying a bridge uplink port in a local network (claimed) to test and analyze the local network.

ADVANTAGE - The method correctly identifies the bridge uplink port within the network, so that an accurate network map can be drawn, and bridge ports where specific devices e.g. PC or **printer**, are connected can be easily **located**.

 $DESCRIPTION\ OF\ DRAWINGS\ -\ The\ drawing\ shows\ a\ block\ diagram\ of\ a\ local\ network.$ 

10 Local network

12 Server

14, 16, 18 Hubs

20, 22, 24 Bridges

50 Test instrument

# FULL-TEXT PATENTS

[no relevant results]

13/5/1 (Item 1 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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### 0016192597 E.I. COMPENDEX No: 2004458448487

## Enabling ubiquitous computing in heterogeneous environments by physically scoped multicast

**Issue Title:** Proceedings - 2001 International Conference on Third Generation Wireless and Beyond (Key

Function of World Wireless Congress)

Trossen, Dirk; Chaskar, Hemant; Krishnamurthi, Govind

Corresp. Author/Affil: Trossen, D.: Nokia Research Center Boston, 5 Wayside Road, Burlington, MA

01803, United States

Corresp. Author email: Dirk.Trossen@nokia.com

Author email: Hemant.Chaskar@nokia.com; Govind.Krishnamurthi@nokia.com

Editor(s): Lu, W.W.

Editor(s) Affil.: Stanford University, United States

Conference Title: Proceedings - 2001 International Conference on Third Generation Wireless and Beyond

(Key Function of World Wireless Congress)

Conference Location: San Francisco, CA United States Conference Date: 20020528-20020531

Sponsor: Nokia; Motorola; Alcatel; Samsung; Siemens

E.I. Conference No.: 63769

Proceedings - 2002 International Conference on Third Generation Wireless and Beyond (Key Function of World Wireless Congress) (Proc. Int. Conf. Third Gener. Wireless Beyond Key Funct. World) (United States) 2002 (792-796)

Publication Date: 20021201 Publisher: Delson Group Inc.

**Document Type:** Conference Paper; Conference Proceeding Record Type: Abstract

Treatment: T; (Theoretical)

Language: English Summary Language: English

Number of References: 11

Ubiquitous computing scenarios that enable permanent access to data, services, and devices, have been studied for several years. Platforms for service discovery and provisioning, such as Jini, have been proposed. However, even simple scenarios, such as **finding** the closest **printer**, pose major difficulties when applied in heterogeneous access network environments. One of the problems encountered is that of the invisibility of services and devices that are located in different network domains. Since it is very likely in future wireless networks that different access technologies will prevail, this obstacle will continue to persist as well. This is because, different access networks are usually organized in separate IP network domains. This paper tackles the above problem by introducing a new scope definition for IP multicast, based on the physical proximity of network devices, in contrast to the conventional scope definitions in terms of logical distance. Furthermore, appropriate packet processing and forwarding mechanisms for physically scoped multicast are presented. Application scenarios are also outlined to demonstrate the applicability of the proposed delivery mechanism therein.

**Descriptors:** Data acquisition; Information technology; Internet; Network protocols; Packet switching; **Routers**: Topology; Wireless telecommunication systems; \*Multicasting

Identifiers: Access routers (AR); Internet protocol (IP); Packet processing; Ubiquitous computing

16/5/2 (Item 2 from file: 23) DIALOG(R)File 23: CSA Technology Research Database (c) 2009 CSA. All rights reserved.

0010003147 IP Accession No: 200808-71-1102672; 200808-61-1203027; 20081062495; A08-99-1165385

Selective computer-generated information distribution system by computer peripheral emulation and use

French, Donald H

, USA

**Publisher Url:** http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u =/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=54 37024.PN.&OS=pn/5437024&RS=PN/5437024

**Document Type:** Patent **Record Type:** Abstract **Language:** English

File Segment: Metadex; Mechanical & Transportation Engineering Abstracts; ANTE: Abstracts in New

Technologies and Engineering; Aerospace & High Technology

## **Abstract:**

An information distribution system operative for receiving a report in the form of a **printer protocol**formatted digital data stream from a report source, **identifying** the report as being of particular classes
and/or subclasses, identifying at least one intended recipient of the report from data contained in the report,
and automatically distributing the report to at least one identified intended report recipient. The system
includes a microcomputer-based controller having an input/output interface that emulates a printer interface
so that the system appears as a printer resource when connected to the report source. The controller
receives a report, and using positional and/or reference cues contained in the report, obtains identifying
information as to intended report recipients. The identifying information is used to look up destination
information relating to the recipient, such as the recipient's facsimile machine telephone number, in a
database. The controller is automatically operative to queue the report, after stripping printer control and
escape codes, for transmission to the intended recipient, utilizing a facsimile machine, fax board, or other
data communications device connected to the controller.

**Descriptors:** Printers; Databases; Digital data; Stripping; Fax; Control systems; Streams; Transmissions (machine elements); Queues; Telephones; Cues

20/5/1 (Item 1 from file: 23)

DIALOG(R)File 23: CSA Technology Research Database

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0011785947 IP Accession No: 200904-71-0954242; 200904-61-0968552; 20090941032; A09-99-0942747

Multi-tiered virtual local area network (VLAN) domain mapping mechanism

De Silva, Suran S; Finn, Norman W

, USA

**Publisher Url:** http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u =/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=74 99456.PN.&OS=pn/7499456&RS=PN/7499456

**Document Type:** Patent **Record Type:** Abstract **Language:** English

File Segment: Metadex; Mechanical & Transportation Engineering Abstracts; ANTE: Abstracts in New

Technologies and Engineering; Aerospace & High Technology

### **Abstract:**

In one embodiment, a first port of a device provides connectivity to a customer network and a second port of the device provides connectivity to a provider network. Frame mapping logic associated with the first port processes a network message received at the first port and accesses a Virtual Local Area Network (VLAN) mapping data structure that maps customer VLAN designations used in the customer network to provider VLAN designations used in the provider network. Frame mapping logic uses the VLAN mapping data structure to associate the received network message with a particular provider VLAN designation based upon the received network message's particular customer VLAN designation. The received network message is then passed toward the second port.

 $\textbf{Descriptors:} \ \textbf{Networks;} \ \textbf{VLAN;} \ \textbf{Ports;} \ \textbf{Mapping;} \ \textbf{Messages;} \ \textbf{Virtual local area networks;} \ \textbf{Devices;}$ 

Frames; Data structures; Logic; Maps

20/5/4 (Item 4 from file: 23) DIALOG(R)File 23: CSA Technology Research Database (c) 2009 CSA. All rights reserved.

0009418343 IP Accession No: 200806-71-693378; 200806-61-795662; 2008667016; A08-99-771048 Interswitch link mechanism for connecting high-performance network switches

Edsall, Tom; Finn, Norman

, USA

**Publisher Url:** http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u =/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=57 42604.PN.&OS=pn/5742604&RS=PN/5742604

**Document Type:** Patent **Record Type:** Abstract **Language:** English

File Segment: Metadex; Mechanical & Transportation Engineering Abstracts; ANTE: Abstracts in New

Technologies and Engineering; Aerospace & High Technology

### **Abstract:**

An encapsulation mechanism efficiently transports packets between ports of different switches in a network on the basis of, inter alia, **virtual local area network** (**VLAN**) **associations** among those **ports**. The switches are preferably interconnected by a novel interswitch link (ISL) mechanism that appends ISL destination and source information, along with ISL error detection information, to **VLAN**-modified packets. The ISL mechanism keeps the **VLAN** associations of the packets intact during transfer between the switches in accordance with a high-performance switching bus architecture.

Descriptors: Switches; VLAN; Ports; Networks; Switching theory; Encapsulation; Virtual local area

networks; Switching; Error detection; Transport; Joining; Buses (vehicles); Architecture

20/5/6 (Item 6 from file: 23) DIALOG(R)File 23: CSA Technology Research Database (c) 2009 CSA. All rights reserved.

0008868538 IP Accession No: 200804-71-311135; 200804-61-321518; 2008298214; A08-99-310105 Multiple VLAN architecture system

McCloghrie, Keith; James, Bernard R; Young, Christopher; Finn, Norman W, USA

**Publisher Url:** http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u =/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=60 35105.PN.&OS=pn/6035105&RS=PN/6035105

**Document Type:** Patent **Record Type:** Abstract **Language:** English

File Segment: Metadex; Mechanical & Transportation Engineering Abstracts; ANTE: Abstracts in New

Technologies and Engineering; Aerospace & High Technology

### **Abstract:**

A system in which a single VLAN architecture spans multiple VLAN transport protocols and technologies, including a method and system in which multiple different VLANs may be combined in a single enterprise network. Each LAN-switch in the sytem identifies each frame with an identifier, and associates that identifier with particular VLAN identifiers for each type of VLAN technology. When a frame is bridged or routed from a first type of VLAN to a second type of VLAN, the first VLAN encapsulation is removed and the second VLAN encapsulation is added, with appropriate change in the VLAN identifier for the frame or packet. The identifier may also be implicit for the frame, such as when a particular set of sender's MAC addresses are identified with a particular VLAN. Individual VLANs, of whatever architecture, may be added, configured or reconfigured, modified, or deleted, using control tools associated with the multiple VLAN architecture system. Individual ports may be associated with particular VLANs, or may be designated 'dynamic'so that frames or packets associated with those ports are associated with particular VLANs in response to source or destination addresses or other information.

**Descriptors: VLAN**; Frames; Architecture; Encapsulation; Ports; Dynamical systems; Control systems; Transport; Protocol (computers); Networks; Dynamics

25/5/3 (Item 2 from file: 23) DIALOG(R)File 23: CSA Technology Research Database (c) 2009 CSA. All rights reserved.

0011915230 IP Accession No: 200904-71-0779121; 200904-61-0793527; 20090767235; A09-99-0769090

## System for management of equipment deployed behind firewalls

Cheng, Shih-An; Mahurin, Don; Zhu, Yuesheng; Chang, Chen-Huei , USA

 $\label{lem:publisher Url: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2\&Sect2=HITOFF\&u=/netahtml/PTO/search-adv.htm\&r=1\&p=1\&f=G\&l=50\&d=PTXT\&S1=7492764.PN.\&OS=pn/7492764\&RS=PN/7492764$ 

**Document Type:** Patent **Record Type:** Abstract **Language:** English

File Segment: Metadex; Mechanical & Transportation Engineering Abstracts; ANTE: Abstracts in New

Technologies and Engineering; Aerospace & High Technology

### **Abstract:**

An element management system enables a network management server to provide a variable value to a management information base of a managed device independent of whether the managed device is served by a network address translation firewall. The element management system comprises an SNMP message manager which **receives** periodic heart beat **frames** from the managed device and stored identification of a heart beat channel in association with identification of the managed device in a registration **table**. The heart beat channel comprises the source socket and destination socket of the heart beat frame. The SNMP message manager further uniquely **associates** an **assigned** UDP **port** number with the managed device and provides the unique association of the **assigned** UDP **port** and the managed device to the network management server. The SNMP message manager further receives an SNMP Set from the network management server embodied as an IP frame addressed to the **assigned** UDP **port** number, looks up the managed device associated with the **assigned** UDP **port** number, and sends the SNMP Set to the managed device using the heartbeat channel.

**Descriptors:** Devices; Management; Networks; Computer networks; Heart; Protocol (computers); Ports; Channels; Servers; Servers (computers); Messages; Frames; Firewalls; Sockets; Management systems; IP (Internet Protocol); **Tables** (data); Translations